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On the northernmost record of *Pritha* (Aranei: Filistatidae) in the Caucasus and entire Asia with notes on Filistatidae from Caucasus

О самой северной находке пауков рода *Pritha* (Aranei: Filistatidae) на Кавказе и во всей Азии, с комментариями о распространении семейства Filistatidae на Кавказе

Yuri M. Marusik[1,2], Armen Seropian[3], Seppo Koponen[4]
Ю.М. Марусик[1,2], А. Серопян[3], С. Копонен[4]

[1] Institute for Biological Problems of the North RAS, Portovaya Str. 18, Magadan, 685000 Russia. E-mail: yurmar@mail.ru
[1] Институт биологических проблем Севера ДВО РАН, ул. Портовая, 18, Магадан, 685000 Россия.
[2] Department of Zoology & Entomology, University of the Free State, Bloemfontein 9300, South Africa.
[3] Dighomi Block III, Beliashvili Str., Building 9, appt.68, Tbilisi, Georgia. E-mail: armen_armen88@mail.ru
[4] Zoological Museum, Biodiversity Unit, FI-20014 University of Turku, Finland. E-mail: sepkopo@utu.fi

KEY WORDS: Araneae, Azerbaijan, distribution, Georgia, new record, redescription, spider.

КЛЮЧЕВЫЕ СЛОВА: Araneae, Азербайджан, Грузия, новая находка, распространение, переописание, паук.

ABSTRACT. *Pritha pallida* Kulczyński, 1897, a species previously known from Madeira to Western Greece, has been found in Georgia. This species is illustrated, and its distribution is commented and mapped. The distribution and taxonomic status of all Filistatidae species known from the Caucasus are briefly discussed.

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РЕЗЮМЕ. *Pritha pallida* Kulczyński, 1897, вид ранее известный от о-ва Мадейра до западной Греции, был обнаружен в Грузии. Вид переописан по обоим полам, приведена карта с известными находками видами. Кратко прокомментировано распространение и статус пауков семейства Filistatidae известных на Кавказе

Introduction

Pritha Lehtinen, 1967, with 25 named species, is the second largest genus of the Filistatidae [WSC, 2019]. Only *Zaitunia* Lehtinen, 1967 has more species (27) [Zonstein, Marusik, 2016; WSC, 2019]. The known distribution of *Pritha* is limited to the Mediterranean, the southern part of Central Asia, Southeast Asia (eastward to Philippines), Vanuatu, Seychelles Islands, and Saint Helena [WSC, 2019]. The genus has never been a subject of global revision, being properly studied only in the Western Mediterranean [Legittimo *et al*., 2017]. The male abdominal pattern suggests that many species occurring outside of the Mediterranean are misplaced in the genus. They lack a large white spot on the dorsal abdomen, which is present in the type species, *P. nana* (Simon, 1869) and in the species known from Europe, Israel, and Iran.

So far, only one species is known from the former Soviet Union, *P. crosbyi* (Spassky, 1938). It has been reported from Kazakhstan, Kyrgyzstan, Uzbekistan, Turkmenistan, Tajikistan, and Azerbaijan [Mikhailov, 2013]. Within the Caucasus, *P. crosbyi* has been reported from Eastern Azerbaijan [Marusik, Guseinov, 2003] and Naxç□van [Marusik *et al*., 2005]. The species lacks the dorsal white spot characteristic of *Pritha* (Fig. 1G). Additionally, it has a relatively shorter male palpal tibia (cf. Figs 1A–B and 1F). There is also one unnamed (unidentified) species from Abkhazia [Kovblyuk *et al*., 2011] that may belong to either *P. crosbyi* or some other species. This species (or complex of closely related species) most likely belongs to *Tricalamus* Wang, 1987 (Zonstein, pers. comm.).

Recently, the second author collected two specimens of *Pritha* in Tbilisi, Georgia, and they were identified as *P. pallida*. The main goal of this paper is to provide comments on this collection.

Material and methods

Specimens were photographed using a Canon EOS 7D camera attached to an Olympus SZX16 stereomicroscope or to the eye piece of an Olympus BH2 transmission microscope at the Zoological Museum of University of Turku, Finland. Digital images were prepared using “CombineZP” and Zerene Stacker image

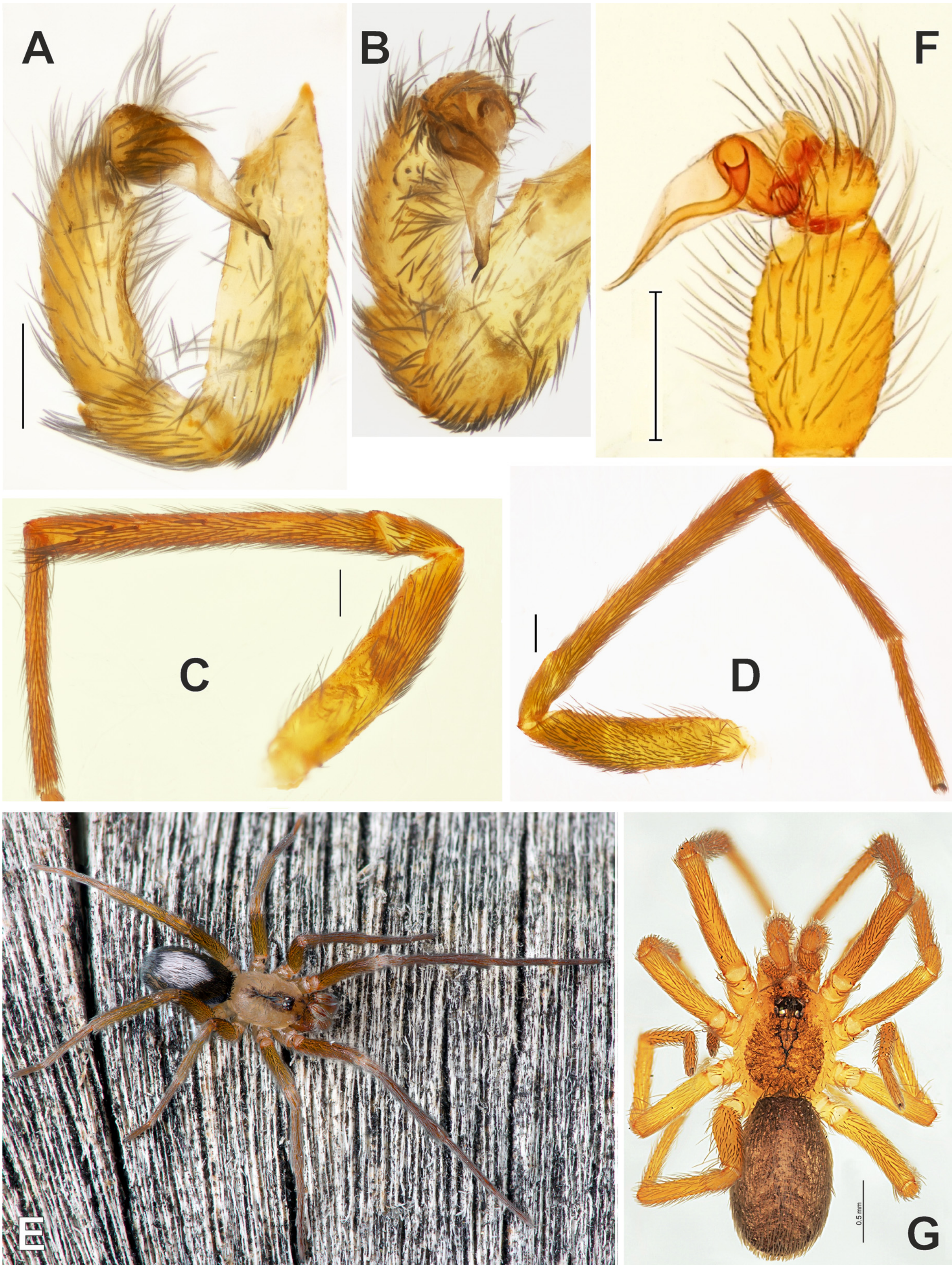


Fig. 1. Males of *Pritha pallida* (A–E) and *P. crosbyi* (F–G; from Naxç□van, Azerbaijan). A–B — male palp, prolateral and antero-prolateral (tibia partly collapsed when specimen dried out); C–D — leg I, pro- and retrolateral showing spination; E — live specimen from Tbilisi; F — terminal part of palp, retrolateral showing size of tibia and bulb; G — habitus, dorsal.

Рис. 1. Самцы *Pritha pallida* (A–E) и *P. crosbyi* (F–G; Нахичевань, Азербайджан). A–B — пальпа самца, пролатерально и антеро-пролатерально (голень частично деформирована); C–D — нога I, про- и ретролатерально, показаны шипы; E — живой самец из Тбилиси; F — терминальная часть пальпы, ретролатерально, показан относительный размер голени и бульбуса; G — внешний вид, сверху.

stacking software. Illustrations of the endogyne were made after clearing in a 10% KOH aqueous solution and exposure for a few minutes in an alcohol/water solution of Chlorazol Black. Lengths of leg segments were measured on the dorsal side. All measurements are given in millimetres. The material studied here will be deposited in the Zoological Museum of Moscow University, Moscow, Russia (ZMMU). Abbreviations used in the paper: p — prolateral; r — retrolateral.

Taxonomic survey

Pritha pallida (Kulczyński, 1897)
Figs 1A–E, 2A–C, G.

Filistata pallida Kulczyński in Chyzer et Kulczyński, 1897: 277, pl. 10, f. 54 (♂).

Filistata pallida: Kulczyński, 1899: 324, pl. 6, f. 1–2 (♂♀).

Pritha pallida: Legittimo *et al*., 2017: 214, f. 2B, 3B, 4B, F, 6C–D, 7C–D, 8A–D, 9A–H, 14C–D, 15C–D, 16D, 17F–I, 20A, 25A, C (♂♀).

For a complete list of references see WSC [2019].

MATERIAL EXAMINED. 1 ♂ 1 ♀ (ZMMU), GEORGIA, Tbilisi, 41°45′44″N 44°46′38″E, in apartment, 3–9.06.2018 (A. Seropian).

NOTE. Several more specimens have been observed in the same apartment, but they were not collected.

COMMENTS. *Pritha pallida* was described based on two males from Crkvenica, Croatia (currently spelled Crikvenica), and according to Legittimo *et al*. [2017], the types could not be located. Thanks to the courtesy of Wioletta Wawer, the recent curator at the Museum & Institute of Zoology PAS, we found one specimen labeled as the holotype and three additional specimens from Madeira (Fig. 2E–F).

Paratypes of the very closely related species *Pritha sagittata* Legittimo *et al*., 2017 are also from Crikvenica. Although the two species have very similar male palps and endogynes, they are easily differentiated by the coloration as clearly indicated by Legittimo *et al*. [2017]: femora I not dark in *P. pallida* (*vs*. dark in P. *sagittata*) and a distinct pattern on the carapace in *P. pallida* (*vs*. uniformly dark in *P. sagittata*). Specimens from Tbilisi fit with the description of *P. pallida* according to the illustrations of Legittimo *et al*. [2017].

Until recently, the endogyne of *P. pallida* had never been illustrated. It was first described by Legittimo *et al*. [2017], and in this work, seven species of the genus from the Mediterranean are described in detail and perfectly illustrated. However, leg spination has not been mentioned for any species treated in the review. While examining specimens, we recognized the presence of strong spines on all legs of the male (lacking in female). Left and right legs may have different numbers of spines. Leg I: femur 1p, tibia 3p (or 2p) 4r (or 2p), II: tibia 3r; III: tibia 2r; IV: tibia 1r.

DISTRIBUTION. The known distribution records of *P. pallida* are shown in Fig. 2G. The exact range is unclear because this species has long been confused with *P. nana* (Simon, 1868). *Pritha pallida* is known from Madeira [Kulczyñski, 1899] to Georgia (present record). It is worth noting that type locality of this species is the northernmost in its range. The new record from Georgia extends the known range about 25° to the east. There is a large disjunction between Corfu, the previous easternmost record, and Tbilisi. It is likely that records of *P. nana* from mainland Greece (see Bosmans & Chatzaki [2005]) may refer to *P. pallida*. Because the Georgian specimens were collected in the city (Tbilisi) only, it could be that the species was recently introduced. Collecting efforts by the first author across Georgia in 1983 and 2012, and particularly in Tbilisi, revealed no filistatids; however, they were found in adjacent Azerbaijan and Iran. Synanthropic filistatids are easily noticed due to their characteristic webs covered with dust on the windows frames like shown in Fig. 2D.

Filistatidae from the Caucasus

So far, only four named species of Filistatidae are known in the Caucasus. Two of these belong to *Filistata* Latreille, 1810 (*F. insidiatrix* (Forsskål, 1775) and *F. lehtineni* Marusik et Zonstein, 2014; see Zonstein & Marusik [2019]) and two to *Pritha* (*P. crosbyi* and *P. pallida*). An additional and currently unidentified *Pritha* species was reported from Abkhazia [Kovblyuk *et al*., 2005]. *Filistata lehtineni* and *Pritha crosbyi* are also known from the southern part of Azerbaijan [Marusik, Zonstein, 2014; Marusik *et al*., 2005]. Information about *F. lehtineni* is missing in the very important and valuable source for Caucasian spiders [Otto, 2019]. *Filistata insidiatrix* is known both in Azerbaijan and Georgia [Otto, 2019] north to almost 43°N (Zugdidi).

Pritha crosbyi, a species described from Uzbekistan and known throughout all Central Asian republics of the former Soviet Union, most likely belongs to *Tricalamus* not to *Pritha*. This species has never been studied in detail, nor redescribed based on material from Central Asia, but only specimens from Azerbaijan [Marusik, Guseinov, 2003; Marusik *et al*., 2005]. Different populations of *P. crosbyi* have never been compared, and it is possible that the population from Azerbaijan may belong to a separate species.

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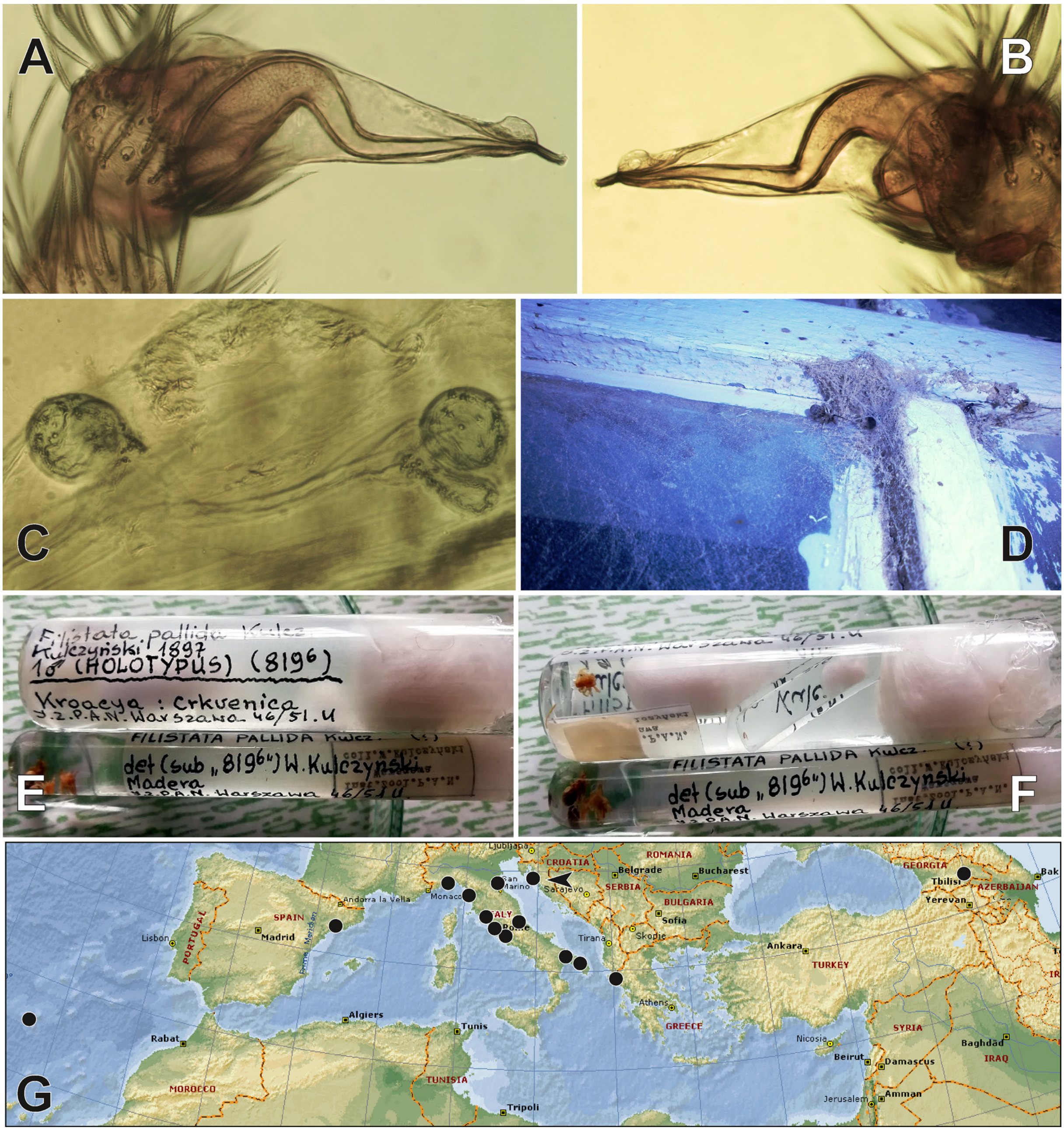


Fig. 2. Copulatory organs, distribution records and vials with specimens of *Pritha pallida* (A–C, E–G) from Warsaw and web of *Tricalamus* sp. (D). A–B — bulb, pro- and retrolateral; C — endogyne, anterior; D — web made in the corner of the window frame and female near entrance, webs always covered with dust; E–F — vials with the specimen labeled as holotype from Croatia and specimens from Madeira stored in the Museum & Institute of Zoology PAS (Warsaw); G — distribution records, map is based on records by Chyzer & Kulczyński [1897], Kulczyński [1899], Legittimo *et al*. [2017] and present record. The type locality is indicated by an arrow. Other literature records are not used because of confusion with species identification prior to the publication by Legittimo *et al*. [2017].

Рис. 2. Копулятивные органы, распространение, пробирки с *Pritha pallida* из Варшавы (A–C, E–G) и сеть *Tricalamus* sp. (D). A–B — бульбус, про- и ретролатерально; C — эндогина, спереди; D — сеть в углу оконной рамы и самка сидящая у входа в норку, сеть всегда покрыта пылью; E–F — пробирки с экземпляром обозначенным как голотип и экземплярами из Мадейры, хранящиеся в Museum & Institute of Zoology PAS (Варшава); G — точки находок, карта основана на данных из Chyzer & Kulczyński [1897], Kulczyński [1899], Legittimo *et al*. [2017] и настоящей находки (иные опубликованные данные здесь проигнорированы, поскольку в прошлом близкие виды не различали до публикации исследования Legittimo *et al*. [2017]).

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